

ABSTRACT OF THE DISCLOSURE

A multi-level data processing method converts a binary data into a multi-level data having  $n$  bits per symbol, where  $n$  is an integer satisfying  $n \geq 2$ . A  $\{(n - 1) \times m\}$ -bit binary data is arranged in upper  $(n - 1)$  bits of multi-level data of  $m$  symbols, where  $m$  is an integer satisfying  $m \geq 2$ , and a  $(m - k)$ -bit binary data is converted into  $m$  bits according to a predetermined conversion rule and arranged in a lower 1 bit of the multi-level data of  $m$  symbols, where  $k$  is an integer satisfying  $m > k \geq 1$ , so as to convert a  $(n \times m - k)$ -bit binary data into 1 set of multi-level data made up of  $m$  symbols.

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